



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-1025; Product Identifier 2017-NM-137-AD; Amendment 39-19199; AD 2018-04-04]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc., Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by several incidents of electrical shorting and sparks caused by de-icing fluid leaks between flight deck windshields and side windows. This AD requires water spray tests and general visual inspections for water in the flight deck compartment, and water removal and sealant application if necessary. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Bombardier, Inc., 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); Internet <http://www.bombardier.com>. You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1025.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1025; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Steven Dzierzynski, Aerospace Engineer, Avionics and Administrative Services Section, FAA, New York ACO Branch,

1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516–228–7367; fax 516–794–5531.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL–600–2C10 (Regional Jet Series 700, 701, & 702), CL–600–2D15 (Regional Jet Series 705), CL–600–2D24 (Regional Jet Series 900), and CL–600–2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the Federal Register on November 17, 2017 (82 FR 54304) (“the NPRM”).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2017-28, dated August 23, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

Several incidents of electrical shorting and sparks have been reported in the cockpit of CL-600-2C10 and CL-600-2D24 aeroplanes. De-icing fluid can leak between the windshields and side windows, leading to possible damage to the cockpit floodlight wires and electrical connections. If not corrected, this condition may result in a flight compartment fire.

This [Canadian] AD is issued to mandate a water spray test and [general visual] inspection for evidence of fluid ingress into the flight compartment. It also provides mandatory instructions for sealant application if required.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1025.

### **Comments**

We gave the public the opportunity to participate in developing this final rule. We received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information under 1 CFR part 51**

Bombardier, Inc., has issued Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016. This service information describes procedures for doing water spray tests on the flight deck windows, doing general visual inspections for water in the flight deck compartment, removing water, and applying sealant to the flight deck windows. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

We estimate that this AD affects 543 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Spray tests and inspections	2 work-hours X \$85 per hour = \$170	\$0	\$170	\$92,310

We estimate the following costs to do any necessary water removal and sealant application that would be required based on the results of the inspection. We have no way of determining the number of airplanes that might need this water removal and sealant application:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Water removal and sealant application	4 work-hours X \$85 per hour = \$340	\$308	\$648

**Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
3. Will not affect intrastate aviation in Alaska, and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

**2018-04-04 Bombardier, Inc.:** Amendment 39-19199; Docket No. FAA-2017-1025; Product Identifier 2017-NM-137-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to the airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, certificated in any category.

(1) Bombardier, Inc., Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10003 through 10342 inclusive.

(2) Bombardier, Inc., Model CL-600-2D15 (Regional Jet Series 705) and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15367 inclusive.

(3) Bombardier, Inc., Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 through 19041 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 56, Windows.

**(e) Reason**

This AD was prompted by several incidents of electrical shorting and sparks caused by de-icing fluid leaks between flight deck windshields and side windows. We are issuing this AD to detect and correct de-icing fluid entering the flight deck, which could damage the flight deck floodlight wires and electrical connections, and ultimately could lead to a fire in the flight deck compartment.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Left Flight Deck Windshield and Side Window Spray Test, Inspection, Water Removal and Sealant Application**

For airplanes on which a left flight deck windshield or a left flight deck side window was replaced as specified in Bombardier Aircraft Maintenance Manual (AMM) task 56-11-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task; or Bombardier AMM task 56-12-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task: At the applicable time specified in paragraph (g)(1) or (g)(2) of this AD, perform a water spray test and do a general visual inspection of the left flight deck windshield and left flight deck side window for evidence of water



ingress into the flight deck, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016. If water is found in the flight deck compartment: Before further flight, remove the water, and apply sealant on the left flight deck windows in accordance with Part C of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016.

(1) For airplanes on which Bombardier in-service ModSum IS67033110181 has not been incorporated: Within 2,500 flight hours after the effective date of this AD.

(2) For airplanes on which Bombardier in-service ModSum IS67033110181 has been incorporated: Within 6,600 flight hours after the effective date of this AD.

**(h) Right Flight Deck Windshield and Side Window Spray Test, Inspection, Water Removal and Sealant Application**

For airplanes on which a right flight deck windshield or a right flight deck side window was replaced as specified in Bombardier AMM task 56-11-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task; or Bombardier AMM task 56-12-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task: At the applicable time specified in paragraph (h)(1) or (h)(2) of this AD, perform a water spray test and do a general visual inspection of the right flight deck windshield and right flight deck side window for evidence of water ingress into the flight deck, in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016. If water is found in the flight deck compartment: Before further flight, remove the water, and apply sealant on the right flight deck windows in accordance with Part D of the Accomplishment

Instructions of Bombardier Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016.

(1) For airplanes on which Bombardier in-service ModSum IS67033110181 has not been incorporated: Within 2,500 flight hours after the effective date of this AD.

(2) For airplanes on which Bombardier in-service ModSum IS67033110181 has been incorporated: Within 6,600 flight hours after the effective date of this AD.

**(i) Credit for Previous Actions**

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (i)(1)(i), (i)(1)(ii), or (i)(1)(iii) of this AD; provided that the left flight deck side window or left flight deck windshield have not been subsequently replaced as specified in Bombardier AMM task 56-11-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task; or Bombardier AMM task 56-12-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task.

(i) Bombardier Alert Service Bulletin A670BA-56-002, dated January 7, 2008.

(ii) Bombardier Alert Service Bulletin A670BA-56-002, Revision A, dated February 26, 2008.

(iii) Part A and Part C, as applicable, of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-56-003, dated May 28, 2015.

(2) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (i)(2)(i), (i)(2)(ii), or (i)(2)(iii) of this AD; provided

that the right flight deck side window or right flight deck windshield have not been subsequently replaced as specified in Bombardier AMM task 56-11-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task; or Bombardier AMM task 56-12-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task.

(i) Bombardier Alert Service Bulletin A670BA-56-002, dated January 7, 2008.

(ii) Bombardier Alert Service Bulletin A670BA-56-002, Revision A, dated February 26, 2008.

(iii) Part B and Part D, as applicable, of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-56-003, dated May 28, 2015.

**(j) Parts Installation Limitations**

(1) As of the effective date of this AD, no person may install on any airplane a left or right flight deck windshield as specified in Bombardier AMM task 56-11-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task.

(2) As of the effective date of this AD, no person may install on any airplane a left or right flight deck side window as specified in Bombardier AMM task 56-12-01-400-801, Revision 48, dated March 25, 2015, or any previous revision of that task.

**(k) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your

request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(l) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2017-28, dated August 23, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1025.

(2) For more information about this AD, contact Steven Dzierzynski, Aerospace Engineer, Avionics and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7367; fax 516-794-5531.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 670BA-56-003, Revision A, dated April 13, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 9, 2018.

Michael Kaszycki,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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